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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,926	03/30/2004	Tadashi Ono	2004-0473A	2901

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EXAMINER	
SIKRI, ANISH	
ART UNIT	PAPER NUMBER
2143	
MAIL DATE	DELIVERY MODE
09/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/811,926	ONO ET AL.	
	Examiner	Art Unit	
	Anish Sikri	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/30/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement submitted on 3/30/2004 been considered by the Examiner and made of record in the application file.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims **1-12**, are rejected under 35 U.S.C 103(a) as being unpatentable over Ding et al (US Pat 5,699,361), in view of Ignatius et al (US Pat 6,418,478).

Consider **Claim 1**, Ding et al discloses a data transmission/reception apparatus having a first predetermined number of processing means each capable of performing a data process, the first predetermined number being two or more, comprising: a second predetermined number of intermediary means for interconnecting first data processing means (Ding et al, Col 9 Lines 5-19, Col 10 Lines 40-48, Col 12 Lines 25-45) and second data processing means and allowing data obtained through the data process performed by the first data processing means to be transmitted to the second data processing section, wherein the first data processing means (Ding et al, Col 9 Lines 5-19, Col 10 Lines 40-48, Col 12 Lines 25-45) and second data processing means are adjoining data processing means, the second predetermined number being smaller by one than the first predetermined number (Ding et al, Col 9 Lines 5-19, Col 10 Lines 40-48, Col 12 Lines 25-45), wherein, the first data (Ding et al, Col 9 Lines 5-19, Col 10, Lines 40-48) processing means includes transmission means for providing connection to the intermediary means to transmit the data to the second data processing means (Ding et al, Col 5 Lines 64-67, Col 6 Lines 1-5), the second data (Ding et al, Col 12 Lines 25-45) processing means includes reception means for providing connection to the intermediary means to receive the data transmitted from the first data processing means (Ding et al, Col 5 Lines 64-67, Col 6 Lines 1-5), and the intermediary means

includes: transmission/reception control means for controlling the data transmission/reception (Ding et al, Col 5 Lines 64-67, Col 6 Lines 1-5); and a buffer for temporarily storing the data (Col 8 Lines 60-65, Col 15 Lines 12-20, Col 16 Lines 64-67).

But, Ding et al fails to disclose that the data transmission/reception apparatus for performing a data transfer by a pipeline technique.

Nonetheless, Ignatius et al discloses the data transmission/reception apparatus for performing a data transfer by a pipeline technique (Ignatius et al, Col 13 Lines 5-15, Lines 23-25).

Therefore, it would be obvious to a person of ordinary skill in the art at the time of the invention was made to allow the use data transfer by pipeline technique, taught by Ignatius et al, for the purpose of efficient data conversion, in the invention of Ding et al.

Consider **Claim 2**, Ding et al as modified by Ignatius et al discloses the data transmission/reception apparatus according to claim 1, wherein, the transmission means includes writing means for acquiring an address in the buffer at which no data is retained and performing a data write at the address (Col 8 Lines 60-65, Col 15 Lines 12-20, Col 16 Lines 64-67), and the reception means includes reading means for acquiring an address in the buffer at which some data is retained and reading the data at the address (Col 8 Lines 60-65, Col 15 Lines 12-20, Col 16 Lines 64-67). It clearly shows on the use of buffers, which aid in data transmission.

Consider **Claim 3**, Ding et al as modified by Ignatius et al discloses data transmission/reception apparatus according to claim 1, wherein, the first predetermined number of data processing means comprise at least one data processing means selected from the group consisting of active processing means and passive processing means (Ding et al, Col 15 Lines 12-30), wherein the active processing means is capable of operating independently of another and the passive processing means operates in synchronization with another (Ding et al, Col 16 Lines 15-50), the intermediary means includes data queue generation determination means for determining whether or not to generate a data queue (Ding et al, Col 17, Lines 23-45) by detecting whether each of the first data processing (Ding et al, Col 9 Lines 5-19, Col 10, Lines 40-48) means and the second data processing means (Ding et al, Col 12 Lines 25-45) is an active processing means or passive processing means (Ding et al, Col 15 Lines 12-30, Col 16 Lines 15-50), and when the data queue is not to be generated, the intermediary means allows the second data processing means to receive data as soon as a data transmission request from the first data processing means is received (Ding et al, Col 17, Lines 23-45). It clearly shows on how data queue affect the processing of data in the system.

Consider **Claim 4**, Ding et al as modified by Ignatius et al fails to disclose the data transmission/reception apparatus according to claim 3, wherein the data queue is not to be generated if the first data processing means and the second data processing means operate in a same task or thread.

Nonetheless, Ignatius et al discloses the data transmission/reception apparatus according to claim 3, wherein the data queue is not to be generated if the first data processing means and the second data processing means operate in a same task or thread (Ignatius et al, Col 3, Lines 55-67).

Therefore, it would be obvious to a person of ordinary skill in the art at the time of the invention was made to allow the use of tasks being operated in a thread, taught by Ignatius et al, for the purpose of efficient data conversion, in the invention of Ding et al.

Consider **Claim 5**, Ding et al as modified by Ignatius et al discloses the data transmission/reception apparatus according to **claim 3** or 4, wherein the data transmission request and the data reception request are the same irrespective of whether the data queue is to be generated or not (Ding et al, Col 16, Lines 60-67, Col 17 Lines 1-5). It clearly shows on how the data transmission occurs.

Consider **Claim 6**, Ding et al as modified by Ignatius et al discloses the data transmission/reception apparatus according to any of claims 1 to 4, wherein, the second predetermined number is equal to or greater than two, and the second predetermined number of intermediary means perform an identical function (Ding et al, Col 18, Lines 34-54). It clearly shows on the use of numbered data processing sections.

Claims 7-10, have similar limitations as to claims **2-5**; therefore, they are rejected under the same rational as to claims **2-5**.

Consider **Claim 11**, Ding et al as modified by Ignatius et al discloses recording medium having recorded thereon a computer program for executing the data transmission/reception method according to any of claims 7, 8, 9, and 10 (Ding et al, Fig 1, Col 1, Lines 66-67, Col 2, Lines 1-8). It clearly shows on the use of a computer/disk memory as a recording medium.

Consider **Claim 12**, Ding et al as modified by Ignatius et al discloses the data transmission/reception apparatus according to claim 5, wherein, the second predetermined number is equal to or greater than two, and the second predetermined number of intermediary means perform an identical function (Ding et al, Col 18, Lines 34-54). It clearly shows on the use of numbered data processing sections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Sikri whose telephone number is 571-270-1783. The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anish Sikri
a.s.

September 14, 2007

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